AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

2. (previously presented): A method of forming a metal oxide film according to claim 27, wherein said glow discharge is carried out in a microwave electric field.

3. (previously presented): A method of forming a metal oxide film according to claim 2, wherein said low power is in a range of 20 to 90 watts, and said high power is in a range of not lower than 100 watts.

4. (previously presented): A method of forming a metal oxide film according to claim 3, wherein an output power of said microwave electric field is continuously changed from said low power up to said high power.

5. (previously presented): A method of forming a metal oxide film according to claim 3, wherein an output power of said microwave field is changed stepwise from said low power up to said high power.

6. (previously presented): A method of forming a metal oxide film according to claim 2, wherein an output of said microwave electric field is changed from said low power to said high power, which is, then, followed by the repetition of a change of output from high power to low power and a change of output from low power to high power.

7. (previously presented): A method of forming a metal oxide film according to claim 27, wherein said organometal comprises an organosilicon compound.

8. (previously presented): A method of forming a metal oxide film according to claim 27, wherein said substrate comprises a plastic material.

9. (previously presented): A method of forming a metal oxide film according to claim 7, wherein said first CVD film comprises an organic layer having a thickness of not larger than 10 nm formed on the surface of the substrate by a low power microwave glow discharge, said organic layer being rich in carbon and having a carbon concentration of not smaller than 15% on the basis of three elements of O, C and Si.

10. (previously presented): A method of forming a metal oxide film according to claim 9, wherein said metal oxide film has a total thickness of not larger than 100 nm.

11. (previously presented): A method of forming a metal oxide film according to claim 2, wherein microwaves in said microwave electric field are intermittently oscillated.

12. (previously presented): A method of forming a metal oxide film according to claim 11, wherein an output waveform of said microwaves is changed by changing a maximum output and an oscillation time.

13. (previously presented): A method of forming a metal oxide film according to claim 11, wherein an output waveform of the microwaves in the low power glow discharge is different from an output waveform of the microwaves in the high power glow discharge.

14. (previously presented): A method of forming a metal oxide film according to claim 13, wherein an output waveform of the microwaves in the low power glow discharge is such that an oscillation time of microwaves in one period is not longer than 1.5 milliseconds.

15. (previously presented): A method of forming a metal oxide film according to claim 13, wherein an output waveform of the microwaves in the high power glow discharge is such that an oscillation time of microwaves in one period is not shorter than 2 milliseconds.

16. (previously presented): A method of forming a metal oxide film according to claim 11, wherein a stop time of the microwaves in one period is 2 milliseconds to 30 milliseconds.

Claims 17-26 (canceled).

27. (currently amended): A method of forming a metal oxide film in a plasma treatment chamber having a gas-barrier property on a surface of a predetermined substrate by plasma CVD using a treatment gas which contains a gas of an organometal and an oxidizing gas, said method comprising:

executing a low power glow discharge so as to carry out a reaction chiefly between the organometals contained in the treatment gas and thereby form a first CVD film on the surface of the substrate, and

executing a high power glow discharge so as to react the organometal with the oxidizing gas and thereby form a second CVD film on the first CVD film, wherein:

(a) the low power glow discharge and the high power glow discharge are executed in the same plasma treatment chamber;

(b) the same organometal is employed for the low power glow discharge and the high power glow discharge; and

(c) the low power glow discharge and the high power glow discharge are executed at the same frequency.